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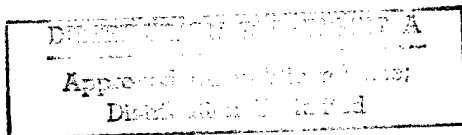
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6 June 1983

# Worldwide Report

EPIDEMIOLOGY

No. 321



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6 June 1983

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## EPIDEMIOLOGY

No. 321

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## BELIZE

### BRIEFS

RISE IN MALARIA--Belize is not winning the fight against Malaria--at least, not yet. Statistics revealed by the Chief Medical Officer, Dr Casas, show that while there were 3,868 cases of Malaria reported last year, this year there may be even more. A thousand cases have been reported during the first three months of 1983 already and health experts in Belize are taking strong measures to prevent this outbreak from becoming an epidemic. Full report next week. [Text] [Belize City THE REPORTER in English 1 May 83 p 7A]

CSO: 5400/7571



## DOMINICA

### BRIEFS

TYPHOID TOTALS FOR 1982--Dominica recorded a total of 31 cases of typhoid fever last year, with the country's second town, Portsmouth, recording the highest level, according to Health Minister Charles Maynard. Mr Maynard told Parliament that Portsmouth, north of Roseau, recorded 11 cases in 1982, followed by Grand Bay, south of Roseau, which had nine cases. Typhoid is a sometimes fatal intestinal fever which is caused by a bacteria found in tainted food or drinking water. Dominican health officials did not give figures for 1981, but said they were lower than those for 1982. [Text]  
[London THE CARIBBEAN & WEST INDIES CHRONICLE in English No 1573, Apr-May 83 p 18]

CSO: 5400/7572

## CONFERENCE ON TROPICAL DISEASES OPENS

Addis Ababa THE ETHIOPIAN HERALD in English 19 Apr 83 pp 1, 3

[ Text ] The second African regional scientific conference of the International Epidemiological Association (IEA) opened here yesterday at the auditorium of Graduate Studies of the Addis Ababa University.

The conference, which was organised by the Association in co-operation with the Institute of Pathobiology and other organizations, will discuss ways of developing at primary health care level, simple surveillance system for the identification of common tropical diseases leading to simple ap-

propriate methods of control taking into account the economic, social and cultural factors prevailing in Tropical Africa.

Attended by medical experts from 13 African and other countries, the four-day conference was opened by Comrade Dr. Teferra Wonde, Minister of Health and COPWE Central Committee member.

Comrade Dr. Teferra said that the conference was being held at an appropriate time when the World Health Organization and its member

states individually and collectively are intensifying their activities particularly in the field of operational research, communicable diseases control, nutrition, etc. In order to meet the formidable challenge of "Health for All by the Year 2000."

Despite the remarkable advances made in health sciences over the recent decades, said Comrade Dr. Teferra, tropical diseases still remain a threat to millions of people in the world mainly in the developing countries. The effect of these diseases, in the life of human beings is reflected in two ways: directly, by their effect on health and indirectly by hampering socio-economic development, Comrade Dr. Teferra noted.

Comrade Dr. Teferra outlined briefly the efforts of Socialist Ethiopia to control and eradicate various diseases and explained the participation of the broad masses to expand health services through self-help schemes.

With particular reference to communicable diseases, Comrade Dr. Teferra said that the problems were mainly due to low socio-economic and cultural standards, shortage of trained manpower, (aggravated by brain drain) shortage of financial and material resources, inadequate knowledge and understanding of epidemiology of the disease, lack of co-ordination of efforts by all concerned and inadequate application of Primary Health Care (PHC) strategy.

Developing countries including Ethiopia, said Comrade Dr. Teferra, have to devise technologically appropriate, operationally manageable, socially acceptable and economically feasible methods of control that could be adopted to each other's needs depending on the concrete conditions. In this regard, he stressed the importance of exchange of experiences.

In addition, Comrade Dr. Teferra said that socio-economic under-development being the root cause for the ever-growing health problems, the countries concerned should fight jointly against all social evils and injustices.

In conclusion, Comrade Dr. Teferra assured the participants of the conference that the Ministry of Health of the Revolutionary Government of Ethiopia would actively co-operate in the regional and global programmes to promote technical co-operation among member states.

The participants of the conference, in addition to those from Ethiopia, have come from Tanzania, Kenya, Nigeria, Ghana, Zimbabwe, Sudan, Zambia, Switzerland, Canada and the USA.

The opening session of the conference also highlighted the opening of the workshop on epidemiological methods for research in tropical diseases which is expected to begin its deliberations on April 22, following the end of the conference.

Opening the workshop, Comrade Dr. Asmelash Beyene, Academic Vice-President of the Addis Ababa University, elaborated on the health problems faced by developing tropical countries, the role of the epidemiological research, as well as the need for trained manpower to undertake research in some of the parasitic diseases.

"For some countries, the order of importance of major tropical diseases may be similar, yet the risk factors involved, types of epidemiological research required and the intervention strategy may not be the same due to discrepancy in many other factors," said Comrade Dr. Asmelash.

"However," Comrade Dr. Asmelash continued, "it is certain that the outcome of a study from one country will be useful or may be applicable to another in some way after careful evaluation." In this connection, he emphasised the importance of establishing long-lasting contacts to share past experiences and future plans or even to form joint research projects based on the spirit of human co-operation.

The participants were also addressed by Dr. Carol Buck, President of the Epidemiological Association, who explained the aims of the workshop and stressed the points which deserve utmost attention.

The workshop will review the major disease problems in Africa and the different types of epidemiological studies and would develop detailed protocols for research in the field.

CSO: 5400/259

# PIONEERING PROJECT ON MALARIA PREVENTION IN YOUNG CHILDREN

London WEST AFRICA in English No 3429, 2 May 83 pp 1065-1066

[Article by Denis Herbstein]

[Text] THERE ARE villagers in The Gambia who honestly believe that British doctors have been putting needles into their veins and selling their blood for gain. Erroneous, to be sure, but not surprising after 35 years of blood-taking by the Medical Research Council (MRC) in the battle against tropical disease. For blood is the most important bodily substance in assessing the state of health of the people.

Examination of changes in the blood will provide vital information in a pioneering project on the prevention of malaria in young children now beginning on the north bank of the Gambia River. Dr. Brian Greenwood, the council's Gambia director, expects the project, which is of considerable interest to the World Health Organisation, to have "important ramifications" in the battle against one of Africa's most prolific killers.

There are no precise figures on malaria deaths, but for many years the vicious West African variety, *Plasmodium falciparum*, has been known to wreak havoc among children up to the age of five. Once over that hurdle, however, survivors can expect a wider immunity to the disease in later life. And this is where the scheme gets into an ethical minefield.

Dr. Greenwood: "There is a very respectable body of scientific opinion which says it is dangerous to give antimalarial drugs regularly to young children. It encourages resistance to the drug (in this case, a maloprim pill every fortnight), especially if not taken as prescribed. And if you protect a child for the first five years, and not afterwards, what happens then?"

For this reason, MRC doctors will have to ensure that children who participate in the project are surveyed regularly for two years after they stop taking the pills.

The obvious advantage of the anti-malaria scheme is that it will stop children dying directly of the disease. Treatment will also end the cycle of fever and weakness which can precipitate malnutrition, which in turn makes it difficult for the child to resist other infections.

The malaria parasite attacks the blood, so that as many as one in four children are seriously anaemic. MRC researchers believe that infant malaria is a significant contributor to poor growth among Gambia's children.

For the first six months of their lives, says Dr. Greenwood, Gambian babies are often as healthy as their European counterparts. Then breast milk decreases, they lose weight, and the replacement millet is not sufficiently nutritious. There is a lot of diarrhoea until the age of three, when they pick up again — if they make it. Then at three and four they enter the most vulnerable age for malaria.

Such is the narrowness of the country, few people live further than five miles from the river or one of its slow-running tributaries — breeding ground of malarial mosquitoes.

The malaria project is part of the Gambian government's ambitious primary health care scheme (PHC) launched in 1981 with the aim of covering the entire country by the end of the decade. The scheme, similar to those in China and Tanzania, will have an elected health

worker (and a traditional birth attendant) with basic medical training in each village of over 400 people. This worker will identify the most common ailments — malaria, diarrhoea, colds and other respiratory infections — and provide simple treatment with drugs, such as aspirin, ointments or dressings.

So great is the enthusiasm to participate that some villages have tried to fake their census returns to raise them over the 400 mark, for smaller villages, with no primary health care and no malaria project, will act as the control for the assessment of the programme. They will have to depend on an old-fashioned dispensary for their good health.

The malaria project embraces 3,000 children in the villages 20 miles on each side of Farafenni, 100 miles into the Gambia River — the same waterway that shipped Kunte Kinte of *Roots* towards the coast and American slavery. Village health workers will report to Dr. Greenwood's team on every child death. Though no post mortem examinations are held, the health card and interviews with the families will in most cases provide a reliable idea of the cause of death. The rainy season — end of May to October — is the worst time for malaria deaths.

Then it will be possible to assess, by comparing with the villages outside the study area, how the anti-malarial drug influences death and illness rates. But only in the late 1980s, when the first generation of children have stopped taking the pill, will doctors understand how regular chemoprophylaxis affects children in later life. A new mini-computer at the MRC headquarters in Fajara, outside the capital, Banjul, means that the information can be processed in a few months. Before, it took two years to be done in England.

I found half-a-dozen members of Greenwood's team on a routine visit to India village (population 500), a lively-looking place, now getting used to being weighed, measured, prodded and stethoscoped. Pre-

gnant women lined up outside a hut to be examined by Dr. Alice Greenwood, Brian Greenwood's wife. Part of the MRC's work in The Gambia is to provide medical care, though most of its resources are devoted to research into the main local health problems — diarrhoea, malnutrition, hepatitis, venereal disease, bilharzia and respiratory infections. Dr. Alice Greenwood was examining a woman with swollen ankles. "It could be toxoemia and as she is at 38 weeks, she will have to lie down until the symptoms go. Other women will grind the rice or carry water for her. If her husband is told I said so, it will be OK."

These mothers are the key to the success of the malaria project. Brian Greenwood: "They are really motivated, they bring the kids regularly to the clinic and look after the health cards, which tell the life story of their children. The fathers don't show much interest."

The Gambia devotes about 10 per cent of its budget to health services, which is a large amount. About half of the country's children have all the necessary jabs. The secret is that there are no special vaccination sessions, but if a baby is seen at the clinic with a cold or other minor illness, it will be given any missing injections. And now the mother will see that her child is given the maloprim pill as well."

Though the maloprim treatment does not begin till June, the survey taken over the last year confirms once again that malaria is a terrible scourge. If the project shows that young children do not suffer in later years from early protection, millions of children in the tropics could benefit. The Gambia, a country squeezed up along the mosquito-infected river, recovering from a bloody coup attempt, from the collapse of the groundnut industry, and all the other problems of under-development, is at least hoping to see the end of malaria. And most important, joked an MRC doctor, "the neglected villagers of the Farafenni area now have a chance to give us their blood."

# ADULTERATION OF FOOD PRODUCTS DRAWS BLAST FROM GOVERNMENT

Georgetown GUYANA CHRONICLE in English 21 Apr 83 p 5

[Text]

THE Health Department of the Linden municipality has issued a warning to food manufacturers and unscrupulous middlemen who adulterate food products and offer them for sale to the public.

Chief Environmental Health Officer Philip Nurse said a number of complaints had been received of packaged food products being adulterated. While manufacturers have not been ruled out the Environmental Health Officer feels that this is mainly the practice of middlemen who distribute the products to consumers.

"Our main concern is the health hazard this poses to the public,"

Cde. Nurse said. Complaints from the public have also led to the dumping of some 200 bags of rice flour by the National Wholesalers distribution bond because of infestation by weevils.

A small quantity had to be withdrawn from the shopping complex as well. It is understood that this spoilage resulted from poor storage facilities at the bond.

Meanwhile the Linden Town Council will shortly be conducting a seminar for restaurant proprietors and other food handlers within the town in an effort to raise standards at the eating-houses.

A source from the

town council explained that the seminar is intended specifically for Chinese nationals, since they have been experiencing a language barrier.

The exercise will focus on the regulations governing the establishment and operation of food businesses. Meanwhile owners of eating-houses as well as those of other food and drink premises have been given until the end of next month to obtain annual health certificates for the current year.

An arrangement now exists whereby certificates will have to be submitted to the Inland Revenue Department before trade licences will be issued. (GNA).

CSO: 5400/7573

INDIA

BRIEFS

'MONKEY DISEASE' SPREADS--The Kyasanur forest disease, a viral disease spread by monkeys, has claimed over a 100 human lives in Karnataka in the past four months, according to official sources, reports PTL. Besides claiming 102 lives, it has also affected 1,470 persons in 164 villages of four districts--Dakshina Kannada, Uttar Kannada, Shimoga and Chickmangalur. The worst affected area was Belthangandy Taluk in Dakshina Kannada where eight villages have accounted for 80 deaths so far, besides a large number of monkeys. About 970 persons affected by the disease, for which a vaccine is yet to be developed, are undergoing treatment in the taluk. [Text] [Bombay THE TIMES OF INDIA in English 2 May 83 p 22]

CSO: 5400/7112

JAMAICA

PUBLIC WARNED OF INSECTICIDE, FUNGICIDE HEALTH THREAT

Kingston THE DAILY GLEANER in English 7 May 83 p 13

[Text] A warning that the insecticides and fungicides which are used for spraying in the Coffee Berry Borer Control Programme can be harmful to animals and human beings has been issued by the Coffee Industry Development Company (CIDCO).

The spraying programme which began in Clarendon on Monday, April 25 and is slated to last three months, covered the districts of Mocho, Pleasant Valley, Cedars, Darlow, Ashlo, Stewarton, Richmond Park, Wanstead, Thompson Town, Grantham, Beckham, Logie Green and Tweedside.

During the week ending May 14, spraying will be carried out in Crofts Hill, Kellits, Simon and Diamond, Moravia, Beckford Kraal and Blackwoods.

A release issued last week by the JIS' Regional Office in May Pen on behalf of CIDCO said:

"The insecticides and the fungicides which are used in the spraying can be harmful to animals and human beings. Farmers are therefore requested, for their own safety, to observe the following precautionary measures: Provide water throughout the field in advance to avoid going into the field during and after spraying; harvest all fruits that are ready before spraying; do not work in the field during spraying; avoid eating anything from the sprayed field for three weeks; DO NOT re-enter field within three days after spraying.

"Also, fruits such as Naseberry, guinep, rose apple and leaves for making "tea" should be avoided.

CSO: 5400/7574



EFFORTS TO CONTROL TUBERCULOSIS REPORTED

BK041132 Phnom Penh SPK in French 0528 GMT 4 May 83

[Text] Phnom Penh, 4 May (SPK)--Financed by the French Red Cross, the construction of three buildings of the Antituberculosis Institute in Phnom Penh has just been completed.

Following the liberation of Kampuchea from the genocidal Pol Pot regime, tuberculosis affected 0.5 percent of the Kampuchean population against 0.35-0.4 percent prior to 1975. Its growth was due to the forced labor, vitamin deficiencies and overwork in the Pol Pot concentration camps.

With the concern of the party and state, antituberculosis groups were formed among surviving health officers and preventative and hygienic measures in this matter were initiated for the population. The network of the anti-tuberculosis struggle has been extended into mountainous and remote regions of the country, particularly in Kompong Speu, Svay Rieng, Kandal and Prey Veng Provinces where the symptoms of this malady can be seen clearly. In Prey Veng Province--chosen for trial practice of the struggle against tuberculosis--each district has its own laboratory. Training courses for health officers in this province have also been successfully opened.

In 1982, 165,700 children in Phnom Penh were vaccinated against tuberculosis. The Phnom Penh Antituberculosis Institute gave consultations to more than 28,770 persons and has definitively cured 1,350 of the 1,900 tubercular patients.

The Phnom Penh Antituberculosis Institute has, since the beginning of 1983, started to enlarge its network in various branches of the industry and, for this purpose, it has trained 105 agents.

CSO: 5400/4419

## SABAH CHOLERA DEATHS REPORTED

Kuala Lumpur THE NATIONAL ECHO in English 1 May 83 p 16

[Text]

KOTA KINABALU, Sat. — Cholera has claimed two more lives in Sabah in the last seven days, bringing the death toll to 18 since the outbreak of the disease early this year.

The victims were a two-year-old girl from a Felda camp, Tungku at Lahad Datu, and a four-year-old boy from Kampung Surati, Papar.

Both deaths were due to late referrals, the state medical services director, Dr Michael K. C. Chan, said today.

During the same period, 85 more cases were detected in the state, bringing the total number of such cases in Sabah to 1,

031, he said.

Dr Chan said 26 of the new cases were from the Sandakan district, seven from Tawau, 17 from Semporna, three each from the Lahad Datu and Kinabatangan districts, 26 from Labuk Sugut and one each from the Kunak, Papar and Tuaran districts.

He said 15 carriers of the disease were also detected during the week from the Tawau, Semporna, Sandakan and Penampang districts.

Three water samples collected for bacteriological examination in the affected areas were found to be contaminated with cholera bac-

teria.

They were from a well at Sekolah Rendah Kebangsaan (SRK) Kampung Budul in Semporna and two untreated household water supplies from patients' houses in km 3.2 Jalan Apas and Kampung Tanjung Batu Laut, both in Tawau district.

Meanwhile three more people have died of cholera in Kelantan, bringing the death toll to five since the outbreak of the disease in the state early last month.

The state acting director of medical and health services, Dr Gurbaksh Singh,

said in Kota Bharu that the three were reported to have died in their own homes without medical treatment or attention.

Two of the victims were a boy and a girl of three years of age and the third was an 84-year-old woman.

The total number of confirmed and suspected cases and carriers has also increased.

A total of 147 patients were confirmed to have disease, 195 were suspected of having it and 176 were confirmed as carriers.

They included seven confirmed patients, two carriers and seven suspected cases.

CSO: 5400/4420

## SARAWAK REVIEWS ANTI-DENGUE PROJECT

Kuala Lumpur THE NATIONAL ECHO in English 30 Apr 83 p 3

[Text]

**KUCHING, Fri —** The aedes vector control programme in Sarawak has been reviewed and strengthened to combat dengue and dengue haemorrhagic fever outbreak more effectively.

State acting Director of Medical and Health Services, Dr Stalin Hardin, said some of the measures were the inclusion of all potential high risk areas under the active vector control programme, and close monitoring of aedes densities in these areas.

With the revision, 61,756 houses, factories, schools and government buildings have been placed under the programme by all local authorities, since January this year.

Other measures were enforcement of the destruction of Disease Bearing Insect Act 1975 in the State, and so far 13 offenders were fined and 387 others warned for allowing the breeding of aedes mosquitoes

on their premises.

A health education campaign to educate the public on the danger of the disease was also intensified especially in epidemic-prone areas, he said at the opening of the four-day Annual Vector Control meeting and seminar here yesterday.

Dr Hardin said Sarawak has a major outbreak of dengue and dengue haemorrhagic fever last year with 120 cases reported, 41 of which were confirmed, claiming one death.

This is an increase by 93 cases while confirmed cases increased by 37 compared with the 1981 figures, he said.

CSO: 5400, 4420

## BRIEFS

PERAK CHOLERA CASES REPORTED--IPOH, Wed.--Three cholera cases have been confirmed in the Parit Buntar district since Thursday, the acting State Director of Medical and Health Services Dr. Jagjit Singh said yesterday. The three victims are children, including a brother and a sister, aged between 18 months and three years. The first case, a boy from Kampung Tok Ngah, Kuala Kurau, was confirmed on Thursday while the other two cases from Kampung Telok, Bagan Serai, were confirmed on Saturday. The three were admitted to the Parit Buntar district hospital and were still receiving treatment, he said in a statement here. Meanwhile, two cholera carriers were detected in Kampung Telok. Both were treated at the same hospital. He said the condition of the five involved was satisfactory. [Kuala Lumpur THE NATIONAL ECHO in English 28 Apr 83 p 16]

SABAH CHOLERA CASES--Kota Kinabalu, Sat--Another 90 cases of cholera were reported in Sabah during the week bringing the total cases to 1,121 since its outbreak early this year. No death was reported during the period. [Text] [Kuala Lumpur THE NATIONAL ECHO in English 8 May 83 p 1]

CSO: 5400/4332

PEOPLE'S REPUBLIC OF CHINA

HEALTH OFFICIAL CITES UPCOMING FOOD HYGIENE LAW

OW071110 Beijing XINHUA in English 1232 GMT 6 May 83

[Text] Beijing, May 6 (XINHUA)--A new food hygiene law will come into effect throughout China on a trial basis on July first, Guo Ziheng, vice minister of Public Health said today.

The law covers 9 chapters and 45 articles, setting standards for food hygiene, additives, containers, packaging, manufacture, management and supervision. Imported foods and those processed by joint Chinese-foreign enterprises will also be required to meet the new standards.

Vice Minister Guo said China's existing regulations were not clearly written with legal sanctions for offenders. Persuasion and education had been used to enforce them, he added, but the restraint of law was also needed to ensure that proper precautions were taken.

Guo Ziheng said a joint circular has been issued by the Ministry of Public Health, the Central Patriotic Public Health Campaign Committee, the Ministry of Light Industry, the Ministry of Commerce and the China National Food Processing Industry Association, calling for promotion of the new law through various media before July first.

He said health administrative departments have been authorized to carry out supervisory work on food hygiene. Epidemic prevention stations and quarantine institutes at the county level and above will represent the government in enforcing the new law.

The Ministry of Public Health, local health departments and the National Food Processing Industry Association have held training classes for food hygiene supervisors and management professionals in the producing or processing enterprises.

Guo Ziheng said inspections will take place during May and June to find out the situation and suggest ways to improve in the light of the new law.

He said the new law would significantly improve food quality and help ensure the health of China's one billion people.

CSO: 5400/4140

PROGRESS IN IMPROVING QUALITY OF RURAL DRINKING WATER NOTED

Beijing JIANKANG BAO in Chinese 27 Jan 83 p 1

[Text] Through emphasis and cooperation of governments of various levels and departments of public health, materials, construction, etc., new progress has been achieved in China's scientific research work to improve the quality of water in rural villages. The condition of drinking unclean water has been changed for 300 million farmers.

Improving the condition of the drinking water in rural villages is the urgent desire of the farming masses. Since 1981, governments of all levels have considered this an important matter in improving the lives of the farmers. In raising the capital, methods of civilian operation with public assistance was adopted to depend upon the capability of the collective body to improve the water supply. The water improvement research was carried out with close cooperation and a joint attack by the various localities and departments to obtain results at various stages.

A national water quality survey of the sources of drinking water is being launched in phases. This survey provides a scientific basis for determining the ways of proceeding with water improvement work in China. In Guangdong, a survey was conducted on cadmium contamination of water and the form, the scale, the characteristic of cadmium pollution, and the extent of its damage to health have been clarified. Method and indices of diagnosis of early stage cadmium poison have been obtained. In Jilin, studies on fluorine content of water have produced the critical and maximum pathogenetic values of fluorine content in the regions of epidemic fluorosis from the epidemiological point of view. In Guangdong a technique of water purification with the "activated silicon-aluminum coagulant" has been produced through research. This water purification technique is low cost; the raw materials supply is extensive, the water purification result is good; and it is highly adaptable. In Liaoning, an ozone and activated charcoal contact-oxidation method has been initiated to treat turbid water. The result is good and the various indices can reach the state's standards. In Jiangsu, Guangdong, and Zhejiang, research has produced a water purification structure. Its construction cost is inexpensive and the labor and material requirements are not high. The structure is very much welcome. A Special Subject Cooperative Team has studied nitrates in water and public health standards have been

preliminarily obtained. The results of these studies have important significance in guiding the current water improvement work.

A National Symposium of Research Results for Improving the Quality of Water in Rural Villages was held in Nanning on 16-21 January to extend these results and to discuss future scientific research work in the field.

6248

CSO: 5400/4138

RELATIONSHIP OF ENDEMIC DISEASES TO GROUNDWATER DISCUSSED

Beijing HUANJING BAOHU [ENVIRONMENTAL PROTECTION] in Chinese No 3, 1983 pp 17-19

[Article by Liu Xiushan [0491 4423 1472] and Li Jingsen [2621 0079 2773]]

[Text] In the geological development process of the earth, the distribution of elements in the earth's crust has gradually become less uniform and this often controls and affects the development of animals and plants and produces regional differences in biological ecologies. When the uneven distribution of elements reaches beyond the normal range of variations, various types of diseases, having regional distribution characteristics, will appear among humans, animals, and plants. These are endemic diseases. Due to the fact that these types of endemic diseases are related to geochemical characteristics, they are also called bio-geochemical diseases. Endemic diseases in Beijing are mainly endemic goiter and endemic fluorosis.

(I)

Endemic goiter is also called simple goiter, or thyroid disease, or swelling thyroid. [In Chinese traditional medicine] it is called Ying [gall] disease. It is caused by an environmental deficiency of iodine which, over a prolonged period of time, causes an iodine deficiency in the human body. The human body obtains iodine from food, water, and air. A normal person requires 100-250  $\mu$ g of iodine, and one-fifth of it is in the thyroid, to participate in the formation of thyroxine, which is one of the indispensable hormones for promoting metabolism and the normal development of nerves and the skeletal bones. In areas where endemic goiter condition is severe, due to the functional abnormality of the thyroid of the victims, congenital mental retardation, deaf-muteness, and dwarfism, mainly cretinism, will frequently appear among their offsprings. In these areas, there is the saying: "first generation goiter, second generation stupidity, broken roots and buds in third and fourth generations." This is an example of the reality of the danger of the endemic disease.

Endemic goiter in Beijing is distributed mainly in the mountainous, semi-mountainous, and a few plains areas. According to statistics of 1976-78, the average incidence among those receiving examinations is 8.4 percent. The incidence of endemic goiter is closely related to the iodine content of the drinking water. When the iodine content of the water is less than 2  $\mu$ g/liter, the average incidence may reach 26.1 percent; when the iodine content is 2-5  $\mu$ g/liter and above, the average incidence is 18.7 percent; when the iodine content is above 5  $\mu$ g/liter, the average incidence is about 8 percent.



Due to the fact that groundwater is the major source of drinking water for the inhabitants of Beijing, the principle of transfer and concentration of iodine in the groundwater which is controlled by conditions of groundwater resource, runoff, discharge, etc., is the obvious controlling factor. In the western and northern parts of the mountainous region of Beijing, the groundwater, in storage in the karst crevices of the limestone and other rocks, flows freely, and the iodine and other elements are in a state of being freed out of it; therefore, the iodine content of the groundwater in the mountainous region is very low, mostly at 1.5-2.5  $\mu\text{g}$ , and not exceeding 3  $\mu\text{g}$  at the highest. Areas in this region are mostly areas of severe endemic goiter with incidences higher than 10 percent. In the plain region of Beijing, due to the fact that the lithological grains of the aquifer are distributed from coarse to fine, from the top of the plain near the mountainous region to the lower part farther away from it, the iodine in the groundwater also moves slower and slower and becomes more and more concentrated in the same direction. At the top of the plain, the aquifer is mostly a single stratum of sandy pebbles as thick as several tens of meters. Here, the groundwater is supplemented by atmospheric precipitation and the condition of the runoff is good so that the iodine content of the groundwater is very low. For example, in such areas as Nankou, Wulituo, etc., it is only 0.7-2.0  $\mu\text{g}/\text{liter}$  to cause the incidence of endemic goiter in this region to be high. From the top of the plain downward, the aquifer gradually becomes multiple strata of sandy gravel and sand, or even becomes many strata of sand layers, and the runoff condition of the groundwater also changes with these variations. Areas of Daxing and Tong Counties, etc., of this region have groundwater iodine contents of 10-30  $\text{Mg}/\text{liter}$ . Therefore, Tong County has no endemic goiter victims and there are very few in Daxing, with an average incidence lower than 2-4 percent.

The work of prevention and control of endemic goiter in Beijing consists mainly of the extension of iodized table salt and iodine treatment for existing victims. Effects of the above measures are apparent. In 1979, the city had about 40,000 fewer victims, compared with the number in 1976-78. Of those receiving examinations, the average incidence dropped from 8.4 to 5.37 percent. Moreover, in Miyun County for example, when iodized salt was first extended in 1956, the average incidence was 37 percent; by 1966 it was down to 18.6 percent; by 1976, it was down again to 3.2 percent. At present, however, there remains a large number of victims of endemic goiter and cretinism in the city; therefore, future tasks of prevention and control remain important.

## (II)

Endemic fluorosis is a chronic, toxic type of disease. Its pathogenesis is mainly the fact that the fluorine content of the drinking water, grains, vegetables, and air of the region exceeds the normal standard causing fluorine to accumulate and be stored in the human body resulting in poisoning.

Fluorine is a necessary trace element of human life. Under normal conditions, an adult requires 1.0-1.5  $\text{mg}$  of fluorine per day; 65 percent of it comes from drinking water and 30 percent comes from foods, etc.

Fluorine poison is apparent in the hard tissues of the human body. In teeth, it is expressed as fluorine-spotted teeth; in the skeleton, bone fluorosis.

When fluorine poison gradually accumulates in the skeleton of the entire body, hyperplasia of the bone and its surrounding soft tissues will appear, as well as calcification (or looseness); the limbs will become deformed and stiff; there will be pain in the back and the legs, the back will be hunched. The victim may even be paralyzed for long periods and suffer.

The Regulation Sanitation Standard for Drinking Water (trial implementation) in China stipulates that the fluorine content of drinking water must not exceed 1.0 mg/liter and the suitable density is 0.5-1.0 mg/liter. According to epidemiological surveys of related medical units of more than 7,000 cases of dental fluorosis in suburban counties of Chaoyang, Fengtai, Tongxian, Changping, Pinggu, Yanfeng, Mentougou, etc., the fluorine content of the drinking water and the incidence of dental fluorosis are in direct proportional relationship. When the fluorine content of the drinking water is below 0.5 mg/liter, the incidence of dental fluorosis is less than 10 percent and the damage by the disease is mild. When the fluorine content is about 1 mg/liter, the incidence is about 60 percent and the damage is mediumly severe. When the fluorine content is higher than 2 mg/liter, the incidence is close to 100 percent and all cases are severe.

The fluorine content of the drinking water of most mountainous and plains regions of Beijing is less than 1 mg/liter, meeting the drinking water standard. Regions with fluorine contents greater than 1.0 mg/liter in the drinking water are mainly distributed in the zone of Daxing County, the southern part of Tongxian, Changping County to Wenquan [warm springs] of Haiding in the lower portion of the alluvium-diluvium region of Yongding River, the zone from the western part of Yanqing Basin and the border area of Pinggu County and Sunyi County, and some individual and scattered places and sections. In these regions, the areas where the fluorine contents are higher than 3 mg/liter are mainly distributed in the southern part of Daxing County, the southern part of Tongxian, the western part of Xiaotangshan, Wenquan, and Yanqing Basin, and some places of the mountainous region of the northern part of Huairou, where the contents may reach 10.3 mg/liter.

The distribution of high-fluorine regions and hydrogeological conditions are closely related. In the zone of Wenquan--Xiaotangshan of Haiding and in Xihujiaying, Dongwuliyin, etc., in the western part of Yanqing Basin, the condition is related to the geothermal water. In Beijing, the fluorine content of the geothermal water is relatively high, being generally 2-6 mg/liter. When the geothermal water is exposed on the ground surface in the form of a spring, or when the geothermal water is connected with the aquifer of the Quaternary System, the geothermal water may recharge the Quaternary crevice water to raise the fluorine content of the latter. In the regions of highly salinized soils of the southern part of Daxing County, the southern part of Tongxian, and the zone from Pinggu to Shunyi County, the evaporation is intense, the flow of the shallow layer groundwater is slow, the mineralization is high, and the fluorine content concentrates. When that water is used for drinking it causes endemic fluorosis to occur, after a given period of time.

Prevention and control of endemic fluorosis is mainly an investigation of the water quality according to the hydrogeological condition of the endemic area and changing the drinking water to low-fluorine water (i.e. containing less than

1 mg/liter). If the area uses shallow layer high-fluorine water for drinking, it may change to deep layer low-fluorine water. For example, Daxing County originally had 58 high-fluorine brigades; of these 53 brigades have changed their drinking water and the results of 49 of these brigades are apparent. At present, about 100 areas in the city have changed the drinking water and 110,000 persons have been benefited.

### (III)

Although endemic diseases are created by the geochemical characteristics of the earth's crust, they may also possibly be related to man-made changes in the environment. For example, the iodine content of the groundwater of 3 production teams of Yizhuang Branch Farm, Hongxing Commune, Daxing County had all been above 10  $\mu$ g/liter, and the iodine contents of the local grains, vegetables, and water are not too low and should meet the physiological needs of human beings. But, in recent years, the incidence of endemic goiter has been greater than 10 percent making these areas among those of severe endemic goiter. Some believed that the genesis of the disease is perhaps the use of wastewater to irrigate the cropland in the past 10-plus years to cause either too high or too low trace elements in grains, vegetables, etc., thus reducing iodine absorption by the human body. Moreover, the cases of endemic fluorosis of some places may perhaps be related not only to the drinking water but also to the excessively high fluorine contents in grains or in the air. For example, the fluorine contents of such crops as soybean, corn, wheat, etc., of Qianfu Brigade and Dapiying Brigade of Daxing County are 2-8 times higher than the standard. In Mentougou Prefecture, there have been cases of fluorosis caused by a high fluorine content of the air in the houses due to improper burning of fluorine-containing coal.

Thus, when endemic diseases in Beijing are being studied, aside from paying attention to the general characteristics of the groundwater factor, proper attention should also be given to all the other environmental factors. The proportional relationship of the various elements in the various environmental factors and their coordinating and antidotal actions should also be studied.

6248

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MORE PROGRESS BEING MADE TO PREVENT ENDEMIC DISEASES

Beijing JIANKANG BAO in Chinese 14 Apr 83 p 1

[Text] Reporters Huang Zemin [7806 3419 3046] and Yu Haiyuan [0060 3189 3046] and correspondent Liu Yongqing [0491 3057 1987] report that in further stressing the prevention and control of endemic diseases, [progress should be made so that] there are leaders for scientific research work, agencies for managing prevention and control work, and special persons to take care of the tasks. This was the demand made, by the National Work Conference of Director Directors of Endemic Diseases Prevention and Control Offices, of all areas suffering from endemic diseases.

All delegates at the conference believed that with the concern given by the Central Committee and State Council, there has been new advancement in China's work of prevention and control of endemic diseases and new achievements have been obtained. In the provinces, cities, and regions of north China, the condition of endemic fluorosis has been basically clarified; engineering projects to remove fluorine and change the water have been extensively developed; 2,747 new wells have been drilled and projects for drawing water and springs in 716 places have been completed for the purpose. In Heilongjiang, Jilin, and Hebei, the method of three-sector investment, involving capital from the state, the collective body, and individuals, was adopted to speed up the construction process. In 1 year's time, tapwater projects were completed for 1,454 places to bring drinking water of low flourine content which meets the drinking water standard, to 2.26 million persons. With joint efforts of the light industry, the commercial, the grain, the supply and sales, and the public health departments, in China's regions of endemic goiter, iodized salt supply, iodized salt processing, transportation, storage, and utilization have been popularized to improve the benefits continuously. According to the statistics of 13 provinces, cities, and regions, the number of cities and counties where endemic goiter has been basically controlled has increased from 386 to 483. Following Shaanxi, Heilongjiang, and Tianjin, the disease has also been basically controlled in Hebei and Liaoning. The condition of Keshan disease in north China is being continuously stabilized and incidences of the acute and subacute types are dropping still further. In one-third of the Keshan disease endemic regions, the standard for its control has been basically reached. Surveillance work for plague has been systematically launched in the entire country.

In some provinces of south China, the work of surveying, preventing, and controlling endemic diseases has been completely developed.

Last year, more than 40 provincial level party leaders and cadres participated in the endemic diseases prevention and control work in the country. In 18 provinces, cities, and regions, 39 provincial level leaders went to the areas of endemic diseases to visit the victims and to help resolve actual problems of prevention and control. A large number of endemic diseases specialists, scholars, and prevention and control specialists traveled all year long at the frontiers of prevention and control work in order to investigate the pathogenesis and to study prevention and control measures to contribute to health protection of the people.

The conference pointed out with emphasis that the one important thing in stressing the work of prevention and control of endemic diseases is to comply with the spirit of the speeches of the leaders of the State Council concerning "not relaxing the work of preventing and controlling endemic diseases." Through reforming the agencies, the leadership teams of the various places should be reorganized and perfected as quickly as possible, so as to start from reality to launch the work of prevention, treatment, and scientific research of endemic diseases to guarantee and sustain the continuously deepening development of the work of preventing and controlling endemic diseases.

6248

CSO: 5400/4318

RESEARCH WORK TO PREVENT VIRAL HEPATITIS PROGRESSES

Beijing JIANKANG BAO in Chinese 17 Feb 83 p 1

[Text] Reporter Huang Zemin reports: In the past several years, China's medical and scientific workers have dared to practice and to cooperate to secure breakthroughs and obtain results in the work of prevention, control, and research of viral hepatitis. In 1979-80, large-scale epidemiological serological surveys of viral hepatitis were conducted in China and the conditions and characteristics of prevalence of hepatitis in China were basically clarified to provide bases for formulating strategies for its prevention and control.

Some municipal governments of Heilongjiang carried out the work of hepatitis prevention and control as an important matter of serving the people. Hepatitis Prevention and Control Leadership Teams were established in every level in the province to form a three-level hepatitis prevention and control network of the provincial, the prefecture (city), and the county. Everyplace in the entire province steadfastly adopted comprehensive prevention and control measures and relatively good results have been obtained. In Shanghai, those involved in medical treatment, public health and epidemic prevention, medical education, and scientific research systems cooperated closely in an all-out effort to prevent control, and study hepatitis. The incidence of hepatitis has dropped somewhat during 3 consecutive years and progress has been achieved in some key research subjects. In Beijing, the work of disinfection and isolation in hospitals was emphasized to reduce the spread of hepatitis B of hospital origin and some experience has been gained in controlling cross infection in the hospitals.

With respect to etiological research of hepatitis, in China, extracorporeal culture of hepatitis A virus has succeeded and the research on making killed hepatitis A vaccine has started. The work procedure to produce hepatitis B hematogenic surface antigen inactivated vaccine is basically ready and is in the small and medium batch trial manufacturing stage. Preliminary tests in humans have proved the vaccine to be safe and effective. A hepatitis B genetic engineering vaccine has been initially achieved in E. coli to produce a base for making third generation hepatitis B vaccine.

For prevention and treatment of hepatitis, a sensitive, specific, simple, and fast method of diagnosis is necessary. At present, blood corpuscular diagnosis of hepatitis B, immunoenzymatic linkage and radiation immunological determination, and hepatitis B surface antigen antibody, etc., are immunological methods being urgently studied in China. Some of these methods have been applied in practice.

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

AGREEMENT WITH WHO--An agreement has been reached between China and WHO to establish Kerxin Leftwing Middle-Banner of Zhelimu League of Nei Monggal Autonomous Region as the primary public health cooperation center for an effective period of 4 years. This is China's first item of cooperation with WHO at the county level of a region of a minority nationality. Previously, primary public health cooperative centers had been established through negotiations with WHO at Yixian of Shandong, Jiading County of Shanghai, and Conghua County of Guangdong. [Text] [Beijing JIANKANG BAO in Chinese 20 Mar 83 p 1] 6248

CSO: 5400/4183

SLIGHT INCREASE IN TUBERCULOSIS CASES NOTED

Lisbon DIARIO DE LISBOA in Portuguese 30 Apr 83 p 2

[Article: "The 'Old Lady' is Still Around"]

[Excerpt] People are still dying of tuberculosis in Portugal. True, the times of paralyzing fear of uncontrollable spreading and death are past. However, the bacillus isolated by scientist Koch over a century ago is still with us. It claims victims every year and fills statistics with disquieting figures.

"This is a typical social disease," declares Dr Leal Goncalves, member of the founding committee of the Anti-Tuberculosis Service (SLAT). "It works within closed ambiances, being transmitted from one individual to another," he added.

Translated in figures, what these words illustrate without beating about the bush, is that tuberculosis records continue to reflect new cases in Portugal every year in far greater numbers than the average taken for 22 other European countries; in 1982, for instance, there have been 75 new cases per 100,000 inhabitants reported in our country, while for Europe as a whole the figure did not exceed 57.2 cases.

The situation is not of alarming proportions, nor do the available data supplied by SLAT (still tentative) warrant drawing speculative conclusions. "There is no outbreak of tuberculosis, which would point to an uncontrolled explosion," underscores SLAT spokesman.

However, it can be said that there is a constant presence of tuberculosis among Portuguese citizens:

"Statistics show that the number of cases in 1983 in Portugal exceeds those reported in Europe in 1970."



#### Slight increase

Moreover, the situation is not negative only when compared to Europe. "The fact is: not only did tuberculosis fail to decline since 1974, as had been expected, but it has actually increased slightly. Now, theoretically speaking, it should have been declining each year, since monies are being expended to combat it".

This, however, did not occur. In 1974 the lowest number of new medical consultations was recorded for the entire decade (82,910). In subsequent years, the number of new cases of tuberculosis will experience a slight increase, reaching 7,551 cases in 1978, a figure that was exceeded only twice in the decade of the '70s.

"Tuberculosis is very sensitive to social factors such as the economic and social development of a nation, unemployment, nutritional deficiencies, etc. Therefore, it is particularly sensitive to social disturbances in that they upset people in their daily habits," explained a SLAT technician.

In the case of Portugal, the arrival on April 25 of large numbers of returnees from our former colonies, and the consequent changes in the political and social climate will, in the estimation of this technician, introduce factors of both collective and individual instability, creating a fertile ground for the spread of the tuberculosis bacillus.

#### Social disease

These fluctuations seem to support the claim of those who--like Ivan Illich or Michel Bosquet--state that the regression of tuberculosis cannot be attributed to medicine:

"With the same amount of care and medical attention," affirmed Bosquet, "the poor continue to contract it four times as often as the rich. It's true that medicine has developed effective treatment, but essentially the battle was won without it".

12342

CSO: 5400/2542

MINISTRY OF HEALTH STREAMLINES SERVICES

Dammam AL-YAWM in Arabic 20 Mar 83 p 2

[Article: "Following His majesty's Agreement, a New Organization for the Ministry of Health To Strengthen the Administrative System"]

[Text] His excellency the acting minister of health, Dr Ghazi 'Abd-al-Rahman al-Qusaybi, declared that his majesty's agreement has been granted to the higher administrative reform committee decree calling for the reorganization of the Ministry of Health. His excellency expressed its appreciation, and the appreciation of all people working in the medical field, to his majesty the king and his trustworthy crown prince for their concern over strengthening and developing health services. In a statement to Saudi News Agency, his excellency the minister of health stated that his majesty's agreement to the ministry's new organization was founded essentially on the desire of his majesty and his highness the crown prince to develop, facilitate, and bring the best health services to all citizens in various areas of the kingdom.

His excellency added that the ministry's new organization was aimed at supporting the administrative system, in terms of following the best methods of organization connected to the administrative leadership units, eliminating duplication, facilitating means and procedures for communication among heads and subordinates, and determining the scope of supervision in the central context, within the ministry and within the health districts, while simplifying measures in a manner that will facilitate speed and accuracy in administrative performance to enhance the technical performances of medical services.

The new organization also has the good of establishing the central agency in the ministry, which will have the responsibility for general planning for health and medical services in the kingdom, with firm participation on the part of officials in the various health facilities in the districts, along with decentralization in execution under the supervision and oversight of the ministry's central agency.

On this basis, two agencies have now been created for the ministry, one executive and the second for planning and development. A number of departments have also been given new names in accordance with the nature of their tasks in the field of preventive medicine or treatment and support (non-medical) services, while further attention has been granted to the services of private treatment organizations and the pharmaceutical sector in terms of permits, technical oversight, medical quality oversight and the disposition and use of drugs.

Dr al-Qusaybi added that to support the acquisition of the best medicines and high levels of medical and health services, attention in the organization has been given to the appropriate administrative levels of each department, according to the size and type of their responsibilities, with emphasis on monitoring supervision, oversight and orientation of the performance of services in general, starting with the central agency and ending with public and private hospitals, clinics, laboratories and pharmacies.

For this reason a number of departments, such as those for international health, forensic medicine, medical council affairs and health bureaus abroad, have been attached to the deputy minister for executive affairs, in addition to one assistant deputy minister's office for preventive medicine and one specializing in parasitic and gastrointestinal diseases, environmental health and vocational health, and an office for the assistant deputy minister for treatment, which will be concerned with psychological and social health, health centers, hospitals, laboratories, blood banks, medical supplies and health affairs departments in the provinces.

In addition, organization and systems and manpower development in the health field have been attached to the deputy minister for planning and development. An assistant deputy minister has been allocated to that while another assistant deputy has been assigned to medical research.

His excellency the acting minister of health pointed out that the new organization includes the corporation of all financial and administrative affairs governing employees, administrative contacts, storehouses, purchases, budgets and public services into a single general department.

His excellency also pointed out that the preparatory administrative committee of the higher administrative reform committee is now diligently engaged in setting out a detailed guide to detailed tasks and areas of specialization in this organization.

11887

CSO: 5400/4515

## RESULTS OF MENINGITIS VACCINATION CAMPAIGN IN THIES REGION

Dakar LE SOLEIL in French 28 Apr 83 p 13

[Article by Amadou Gaye: "250,000 People Vaccinated Against Meningitis"]

[Excerpts] The results of the campaign for vaccinations against meningitis and preparations for the agricultural season were the points raised at the most recent meeting of the CRD [Regional Development Commission], which was presided over by Governor Tidiane Ly, with the prefects of the three departments in the Thies region attending.

Regarding meningitis, Doctor Niang, the senior medical officer, spoke at some length on the unjustified state of panic which arose when meningitis first appeared in the Thies region. Although Thies belongs to the meningitis belt, only 388 cases were recorded, including about 10 deaths. Although at first the proper kind of medicine was not immediately available, Doctor Niang said that it had been possible to bring the situation under control. Throughout the region 251,116 people were vaccinated against meningitis.

Therefore, Doctor Niang stated, the Thies region was spared a serious epidemic, even though a few cases may still appear. The vaccination program was halted for a time because of the delay in obtaining vaccine, but it will begin again in the near future. Vaccinations will also be administered as part of a broadened program with regard to the seven target diseases. These vaccinations are being given as a part of the "Health for Everyone by the Year 2000" program.

After the speech by Doctor Niang, the directors of the medical districts of Tivaouane, Thies, Mbour, Popenguine, Joal-Fadiouth, Khombole, and Meckhe; the senior doctor of the Hygiene Service; and the senior doctor of the Epidemiology Service spoke in turn. Speaking for Tivaouane District, Dr Abdou Maty Ndiaye said that no case of meningitis has been reported for the past 3 weeks. A census is also under way in this region for children from 2 to 4 years old. However, it would be helpful if we could have a vaccine against the fear which is widespread among the people, even though the danger has disappeared. As far as the broadened program is concerned, she regretted the breakdown in the supply of vaccines at the very moment when a public information program had prepared the people for a continuing series of vaccinations.

She added that this breakdown in the supply of vaccines was harmful because it will be necessary to undertake a new information program before resuming vaccinations.

The senior doctor of the Mbour Region expressed pleasure over the work already done, with a total and constant availability of medicines. However, he said, it would be wise to prepare ourselves for the next meningitis season, as the disease is seasonal.

In the Popenguine Region, according to the senior doctor, a single case of meningitis was reported. He also praised the devotion displayed by the doctors during this campaign.

In the Joal-Fadiouth Region, out of about 100 cases reported there were two deaths. Meanwhile, all of the people in the villages have been vaccinated. The broadened vaccination program was begun on 15 April. In the view of the senior doctor of the Hygiene Service, Doctor Bodian, a question of hygiene remains to be resolved.

At present, he indicated, the supply of vaccines is on hand, and the vaccination campaign is ready to begin again. In the Khombole area, bordering on the Diourbel Region, there were initially some errors of diagnosis. The epidemic had been first reported in a village located in Bambey Department. However, for the past 3 weeks no cases have been reported.

Regarding the Expanded Vaccination Program [PEV], although all of the children have been registered, unfortunately there has been an interruption in the supply of vaccines. In Meckhe, a crossroads city, instructions received at first to the effect that vaccinations should only be given along the main roads created problems, because the meningitis cases were in the area away from the roads and not along the highways.

#### Good Spread of Vaccinations

With a coverage of about 70 percent of the people, the problem has now been largely solved, the senior doctor of the Epidemiology Service said, expressing his pleasure over the good spread of the vaccinations program. Regarding the PEV program, he also said that vaccines are now available, and it is now a matter of issuing the necessary instructions to begin the effort.

After the medical authorities spoke, the administrative authorities and the chiefs of government services gave their views on this campaign against meningitis.

They expressed satisfaction over the mobilization of health technicians in this connection and placed great emphasis on the need to make arrangements for the future and avoid disagreeable surprises. The need to have a minimum supply of vaccines on hand was emphasized. Regarding a public information program for the people, they also asked that technical preparations should be made by the doctors to permit services like the social development service to get down to work.

In reply to the different questions raised Doctor Niang stated that as far as vaccines are concerned there is a problem of how long they can be safely kept.

#### Provision of a Chain of Refrigerators

He emphasized that everyone wants to see the various departments in the country function in an autonomous way. However, he emphasized the need to provide for a chain of refrigerators to preserve the vaccines. He said that it also seems to be difficult to reduce the meningitis case rate, contrary to the experience with yellow fever, for example. The period of validity of meningitis vaccination is from 2 to 3 years. Therefore, every 3 years it will be necessary to have people revaccinated.

He also repeated his desire to work with the human development program (the social development program), which could thus serve as a link between the doctor and the people.

Regarding the use of technical references, Doctor Niang expressed some concern, including particularly a fear of confusion, as certain diseases have almost identical symptoms.

In conclusion, regarding this first point raised at the CRD session, Governor Tidiane Ly indicated that the problem came down to the old saying that an ounce of prevention is better than a pound of cure. He emphasized the need to transport the vaccine to the departments where there are minimum facilities to preserve it. The governor also emphasized that a certain psychosis of fear among the people is inevitable. However, he declared that certain precautions can be taken in terms of the overall effort made. In the name of the CRD and of the people of the region he congratulated the doctors for their availability and their efficiency, which they had proved in dealing with meningitis.

5170

CSO: 5400/260

SAIMR PUBLISHES 'ATLAS OF BILHARZIA'

Pretoria SCIENTIFIC PROGRESS in English Vol 16, No 1, 83 p 2

[ Text ]

An *Atlas of Bilharzia*, the culmination of 30 years' field work by various research units, has been published by the South African Institute for Medical Research (SAIMR), in conjunction with the Department of Health and Welfare and the South African Medical Research Council. The *Atlas* was edited by Prof. J.H.S. Gear, a former director of the SAIMR, Dr R.J. Pitchford, former head of the Bilharzia Research Unit, Nelspruit, and Prof. J.A. van Eeden, head of the Snail Research Unit, Potchefstroom University.

Schistosomiasis (bilharzia) is prevalent in Africa, the Middle East, Latin America and Asia. It is caused by a parasite that lives on aquatic snails in shallow water, then enters the human body where it causes haemorrhage and tissue damage, sometimes with fatal results. According to the World Health Organisation, the disease affects 200 million people world-wide. It is estimated that about 2 million people in South Africa suffer from it at any one time. The condition is regarded as the commonest predisposing factor to cancer of the bladder. Other diseases linked to bilharzia are disorders of the kidney, the liver and more rarely the lung. Although effective treatment is available, it is often found that as soon as patients in under-developed areas are cured, they are re-infected as a result of a lack of safe water for drinking, washing and recreation. Similarly, bilharzia control is possible, but practical problems make it difficult to apply the necessary measures.

Although bilharzia is not generally regarded as a fatal disease, it is clear from information given on the maps that its prevalence among the population in an endemic area such as the Eastern Transvaal is high, thus placing a strain on the available hospital services. Consequent loss of man-hours could have a severely restrictive effect on the economic development of such a region.

The *Atlas* comprises a series of large-scale maps showing the distribution of bilharzia and its vectors throughout Southern Africa. Collections of specimens in the field, followed by detailed studies in the laboratory, enabled the distribution of bilharzia and the occurrence of snails, which serve as intermediate hosts of the parasites, to be transferred to the detailed maps. The incidence of the disease in the population is indicated by percentages where the vectors concerned occur.

The *Atlas* should be invaluable to certain government departments, provincial administrations and local authorities in the planning and establishment of public recreational and other facilities in bilharzia-free areas. The *Atlas* will also be of value to scientists such as zoologists and ecologists, concerned with snails and their environment. It would be of use to the public too, when considering holidaying in areas where bilharzia is endemic, and to members of the medical profession whose advice may be sought on the safety of water in various places, including recreational resorts.

An international cartographic specialist company in Germany recently applied for rights to distribute the *Atlas* in Europe, as there is no other comparable publication in this particular field.

CSO: 5400/259



# OVERCROWDING HELPS SPREAD TB, REPORTS SANTA

Cape Town THE CAPE TIMES in English 3 May 83 p 11

[Text]

TEN people die every day in South Africa from tuberculosis and about 3600 each year, according to SANTA (SA National Tuberculosis Association).

In its latest report SANTA points out that overcrowding under "atrocious environmental conditions" such as at Crossroads, coupled with malnutrition, undernourishment and rising unemployment, results in the disease spreading over a wide area.

Between 50 000 and 60 000 new cases are notified annually, but surveys show that more than 100 000 more cases remain unreported and untreated, passing the infection on to yet more victims.

Dr Frank Mitchell, chairman of the Cape

Province Tuberculosis Council, (SANTA, Cape Town) hopes that SANTA Awareness Week, from May 21 to 28, will help educate people at risk, and their employers, in the prevention of tuberculosis.

Proper nutrition and regular exercise will also be promoted during SANTA Week which is held nationally every year, and the theme of which, this year, will be "Help Yourself to Health".

"One of our aims this year is to make Cape Town industrialists aware of the true facts regarding TB, so that employees are not dismissed unnecessarily," said Dr Mitchell.

"There is a stigma attached to the disease. As soon as a man's illness is diagnosed as TB, his employer wants to get rid of him. With

modern drugs, the disease is prevented from spreading and a man can continue working and supporting his family while being cured."

The campaign also aims to raise funds for two day centres in Athlone and Elsie's River where child victims of TB, child contacts of the disease and children whose home environments make them susceptible to TB, are cared for and treated.

"They all have to be fed, to be cared for, to be made to feel at home when they first arrive, as hesitant little strangers, to be loved," said Dr Mitchell.

SANTA also needs funds to continue providing interim financial aid to disabled TB sufferers while their grant applications are being processed.

## TB OUTPATIENT TREATMENT DESCRIBED

Pretoria SCIENTIFIC PROGRESS in English Vol 16, No 1, 83 p 4

[Excerpts]

The Tuberculosis Research Institute (TBRI) of the South African Medical Research Council has obtained encouraging results from a study of the effectiveness of a 'health visitor' in supervising tuberculosis (TB) treatment on an outpatient basis. Such treatment is less disruptive to the patient, and considerably less expensive than treatment in a hospital.

In spite of great advances in drug therapy, and encouraging downward trends in the incidence of the disease, TB remains a major health problem in South Africa. Each year approximately 1 to 2 out of every 1 000 Whites, 3 to 4 out of every 1 000 Asians, and 10 to 20 out of every 1 000 Blacks in the Republic and the homelands become infected with tubercle bacilli.

This is an unnecessary danger to human life, since the disease can be completely cured if it is detected early enough and if proper treatment is given. Unfortunately, the treatment for TB must be applied over a period of time, and many patients stop taking their drugs prematurely or take them erratically. This is not much better than not receiving treatment at all, since it often leads to the development of strains of the tubercle bacilli that are resistant to particular drugs.

One solution to this problem of default or non-compliance is to keep patients in hospital while they receive therapy, and indeed a 6-month period of hospitalisation is necessary when the treatment combination includes the powerful anti-TB drug rifampicin. However, this lengthy hospitalisation causes hardship to patients and their families and is very costly at R1 300 to R1 800 per patient per year.

The TBRI therefore embarked on a study to see whether effective supervision of outpatients under South African conditions was feasible. Supervision was provided by a Black male health visitor equipped with a car, who acted as the intermediary between the team controlling the trial, the hospital, the clinic, and the patient. Results have shown that one motorised visitor can successfully supervise the treatment of 300 outpatients at less than 4 per cent of the cost of hospitalisation.

Over periods of 6 to 30 months, 314 patients, attending 50 different clinics, have been studied. Co-operation on the part of most employers has been good and cure rates for patients remaining in the trial are 90 to 100 per cent. During 9-month treatments about 13 per cent of all patients drop out, which is a low rate of absconders when compared to other trials by the Institute, in which the drop-out rate was as high as 54 per cent. Even employing a qualified health inspector, it has cost less than R10 000 to supervise the 314 patients for one year, whereas it would have cost R345 000 to treat them in hospital.

# BILHARZIA ALERT IN LOWVELD REPORTED

Mbabane THE TIMES OF SWAZILAND in English 4 May 83 p 16

[Article by Mandla Magagula]

[Text]

THE Public Health Department has declared war on bilharzia.

This disease, which is more common among children, is reported to be widespread in the lowveld.

And the department has warned people with symptoms of the disease to go for free treatment to public clinics.

The Bilharzia Control Unit, which has its headquarters in Manzini is sending out specially trained teams to these areas to give free treatment.

A department spokesman said government was stepping up its drive to control the disease throughout the country.

An official of the Ministry of Health said yesterday that a team would be going to Emvembili in Hhohho District, north of Pigg's Peak today.

"The disease is mostly to be found in the lowveld areas," the official added.

He said all children and adults were being screened. If they were found to be infected,

teams from the control unit in Manzini were sent to treat the patients in their respective areas.

"In the past we were working mainly on the children," the official said. "We have since realised that adults need to be examined also. This is what we are doing now."

The official warned rural communities to take the advice of rural health visitors and build latrines. This would minimise the risk of getting infected with bilharzia germs.

People in the country should visit the village technology units of the Ministry of Agriculture and Co-operatives to learn how these latrines were constructed at minimum cost, the official said.

It is understood that bilharzia is very common in the areas around the Phophonyane River north of Pigg's Peak.

The official explained that the disease was more common in the middle and lowveld area because the snail which was host to the

disease was found in these areas.

The snail, he said, was not found in the highveld. He said man infected the snail and the snail in turn infected human beings.

"It is a cycle," the official said. "In the highveld, the cycle is incomplete because the snail is not there."

The official warned that people should not urinate into the country's rivers because this was one way of spreading the disease. He said it was for this reason that the ministry had recommended that rural families should build latrines.

It was very important that rural families co-operated fully with ministry of health officials, especially the rural health visitors.

The official said the disease was particularly widespread in the lowveld because of the high temperatures and further aggravated by people urinating in the lowveld rivers.

SWEDEN

DOMESTIC CASES OF 'THAILAND GONORRHEA' REPORTED IN GOTEBOG

Stockholm SVENSKA DAGBLADET in Swedish 23 Apr 83 p 10

/Article by Margareta Artsman/

/Text/ Several domestic cases of the so-called imported Thailand gonorrhea have been detected for the first time in Sweden, in Goteborg.

The source of infection does not come from abroad, and the doctors warn that the infection can be spread through prostitution.

"This gonococcus strain which is usually called the Thailand infection can not be treated in the usual manner with penicillin but has to be treated with special injections," says Dr Knut Lincoln, a bacteriologist in Goteborg.

"We are trying to get in contact with the patients through welfare officers, but it is difficult to control its spread since the infection obviously exists among a number of prostitutes, but we know that more have it."

Difficult to Run Down the Source

We are now trying to run down the original source of this outbreak of the Thailand infection. But this can be difficult because those who have had contacts with prostitutes do not want to admit it.

"Previously all those infected with this gonorrhea strain brought the sickness from abroad. It is disconcerting that we now have domestic cases," says Dr Lincoln. Particularly since the Thailand infection has been declining in the most recent years.

In 1976 Goteborg had only one case. In 1980 when newspapers wrote a lot about so-called sex trips to the Far East, there were 34 cases. In the last two years the decline has been noticeable. Now you have in one bunch 15 cases in which the infection appears to be domestic.

"The cases of uncomplicated gonorrhea are apparently declining," Dr Lincoln says. Goteborg had 3,300 cases in 1976, and in 1982 only 1,200.

TOBAGO PLANS CLEAN-UP DRIVE AGAINST UNSANITARY CONDITIONS

Port-of-Spain TRINIDAD GUARDIAN in English 3 May 83 p 6

[Text]

**SCARBOROUGH:**

THE Tobago House of Assembly has planned an assault on insanitary conditions on the sister isle. Assemblyman Kenneth Jones, secretary for health sanitation and environment, revealed in an exclusive interview last week that plans were well underway to launch several programmes.

Said the Assemblyman: "These programmes will involve all sectors of the health services in Tobago and also seek the assistance of several service clubs such as Rotary, Lions and Jaycees, and the Tobago Chamber of Commerce.

"The Solid Waste Division will assist us in the sanitary land-fill project in which garbage will be disposed of by burial," he added.

According to Mr. Jones, two immediate steps will be taken to focus attention on the drive for better sanitation. The first will be sanitation competition among schools, involving the children at all levels. Next step is a seminar on sanitation which will be held sometime within the next few months. The seminar will allow inputs from all concerned agencies.

Mr. Jones touched on areas such as Insect Vector control, nutrition, the removal of wrecks and garbage collection. He said: "We would like to see that all garbage containerised. We are hoping to have suitable bins place all over the island in the near future to eliminate the problems posed by stray dogs, cats and fowls."

The assemblyman emphasised that the public health inspectors will play a major role in the programme since they will be the ones to monitor everything. He pointed out that there had been no major health care in Tobago but that the measures to be adopted by the health services will be purely preventive.

CSO: 5400/7575

MEASLES, DYSENTERY, CHOLERA FOUND IN REFUGEE CAMP

Kampala UGANDA TIMES in English 28 Apr 83 p 4

[Article by Ben Ochan: "Epidemic Threatens Peaceful Luwero"]

[Excerpts] Peace has returned to Luwero District but urgent measures are necessary to contain a possible out-break of measles, dysentery and cholera epidemics. The food shortage is also acute.

From Kagoma township on Kampala-Gulu road, one can now see civilians and soldiers freely engaged in their business by the road sides up to Katikamu, 33 miles on Gulu road where our reporter stopped during a visit to the district over the weekend.

But reports by "MUNNANSI", a DP weekly newsletter of April 16, 1983 that "thousands of Ugandans living in Luwero District have been forced into refugee camps at Ndejje Senior Secondary School by Uganda National Liberation Army are wild. Our visit there showed that no one was being herded into the camp against his wish.

But it is true that the camp contains more than 10,000 people and their number is increasing day by day.

A majority of the encamped people said they had been helped by the UNLA soldiers to reach the camp. They come mostly from Makulubita, Lubwa and Nakaseke Gombololas (sub-countries).

Most of the men were either building huts or were lying down ill. Most children were either suffering from measles, dysentery, cough or eye infections.

But one notable thing at the camp is the likely outbreak of epidemics. Already measles is a killer and within the one month or so of living in the camp, more than 20 children have died.

The posho that the District Commissioner of Luwero, Mr Nathan Karema had distributed is now exhausted. Even soya flour that Bishop Dunstan Nsubuga of Namirembe had offered is exhausted.

There was not a single medicine within the camp. And women are anxiously waiting for medicine to save their children from measles, dysentery, fever, eye infection, vomiting and instant bleeding from the nose.

## RINDERPEST ELIMINATED IN NORTHERN PART OF NATION

Ndjamena INFO CHAD in French 14 Apr 83 p 7

/Text/ Adoum Moussa Sief, minister of animal husbandry and pasture hydraulics, has just made an official tour of inspection in the veterinary sector of Mongo in Guera, where he saw a distinct improvement in animal health. He came back from this trip favorably impressed. The minister noted with satisfaction that rinderpest has disappeared in the northern section of the country, particularly in Batha, Biltine and geographic Ouaddai. Adoum Moussa, who reported that more than 3 million units of vaccine were used by the teams on the scene, stated that the cattle plague might be totally subdued throughout the territory within three months' time. The scourge has been all but eradicated in Guera, but is still raging in the southern part of the country, which is an area of high animal concentration.

At Mongo, the population is faced with the water problem. There is an enormous water shortage in this region, which was hit by the drought, and the minister stressed that this situation is a source of concern to the government, which, moreover, recently sent a study mission to the locality. Adoum Moussa mentioned in this connection the participation of the International Association for the Struggle against Hunger (AICF) in the drilling of several wells.

The vaccination campaign was successfully conducted thanks to the assistance of the international community and of humanitarian organizations. Most of the projects of the emergency campaign against rinderpest were financed by the FAO /Food and Agriculture Organization, Rome/, the PNUD /United Nations Development Program/ and the UNSO /United Nations Sudan-Sahelian Office/. To this must be added the aid of the Ecumenical Council of Churches. The Council placed at the disposal of the ministry of animal husbandry 20 refrigerators, 60 ice-chests and 10 barrels, each containing 200 liters of oil, and a lot of spare parts for the refrigerators.

8089

CSO: 5400/250

PERU

BRIEFS

FOOT-AND-MOUTH DISEASE EPIDEMIC--Cesar Rojas Huaroto, chairman of the Health Commission of the Provincial Council of Lima, reported that a foot-and-mouth disease epidemic is currently affecting about 7,000 hogs that feed on leftovers in Pucara, located at kilometer 18 on the South Pan-American highway, near Lurin. He said that the purpose of this report is to alert the people, especially the authorities of the Ministry of Health, the agency that will be responsible for incinerating the pigs in order to avoid further harm to the people. Foot-and-mouth disease and parasitosis in hogs cause cysticercosis in people that eat the hogs. The latter disease produces parasitic cysts that lodge in the brain, muscles, liver, or some other organ, causing heart disease and other serious diseases, he said. Rojas Huaroto also reported that, in the slaughterhouse of Yerbateros, 30 percent of the animals that are slaughtered there are sick with tuberculosis and parasitosis, with serious consequences for the public consumer. The left-wing councillor said that a press conference will be held this coming Friday at noon in city hall to fully explain these reports. [Text] [Lima EL COMERCIO in Spanish 27 Apr 83 p A 9] 8255

CSO: 5400/2076



## PORTUGAL

### BRIEFS

PROLIFERATION OF CATTLE PLEUROPNEUMONIA--The closing of fairs, collective milking sheds, and cattle exhibits is imminent in the Beira Litoral region as a result of the proliferation of pleuropneumonia, an official of this sector announced day before yesterday. Jorge Claro, director of the Pombal Agricultural Cooperative, said that the disease had spread in the Beira Litoral area, and that some cases had already been discovered in the Tocha region. He added that for this reason the traditional fair and cattle exhibit in Pombal--scheduled to take place during the last week in July as part of the age-old traditional celebrations held in that town, which is in Leiria district--would probably not be held. For the same reason, the fairs and cattle exhibits in the Entre-Douro-e-Minho region have likewise been closed, together with the collective milking sheds. Pleuropneumonia is a pulmonary disease that attacks cattle, is manifested by a loss of hair, and results in the death of the animals within a short time. [Text] [Lisbon 70 DIA in Portuguese 16 Apr 83 p 3] 10992

CSO: 5400/2537

## GOVERNMENT INSTITUTIONS STUDY, COMBAT LOCUST OUTBREAK

Yaounde CAMEROON TRIBUNE in English 27 Apr 83 p 5

[Text]

Following the recent outbreak of hoppers in Buea, IPAR, Buea with the collaboration IRA, Ekono, undertook a study to determine the extent of spread of the hoppers and the degree of damage on plant life. The hoppers were identified at the IPAR Buea Mile 17 experimental farm project and the Likoko-Membea government school garden.

A release issued by the Director of IPAR Buea Mr. Kajih John Tansam, states that some control measures have been adopted at Likoko Membea and that IRA, Ekono provided Knapsack sprayers and personnel to assist in the destruction of the hoppers at Mile 17 and Likoko Membea.

## EXTENT OF SPREAD

According to the release, the hoppers were identified to fall within the family of Acrididae (Locustidae), and are called *zonocerus variegatus*. They were noticed on almost all herbaceous cover with an approximate count of about 50 per square meter, in areas around the Pan African Institute for Development, government residential area, Bokwango and Likoko

Membea government school gardens. Severe damage was observed on the neighbouring bushes, hibiscus hedges, ornamental palms garden, vegetables (beans, okro, cabbages, fluted pumpkins, huckleberry, plantains and so on). Shrub stumps such as gum-tree were also under heavy attack.

Both the nymph and adult stages were observed to be in their active and feeding (gregarious) phase. The adults also swarm and fly long distances to settle on fresh vegetation when disturbed by fall in temperature, wind, rain etc.

It was also observed that yam vines, bitter leaves, cypress shrubs, eucalyptus trees and tintonia hedges were unaffected apparently because they are toxic and resistant to the pest. Many hoppers were found dead under these plants probably due to sap poisoning.

*Zonocerus variegatus* belongs to the locust family and feeds indiscriminately, chewing anything vegetable in its path, and even on that which poisons it. If an outbreak of these hoppers is severe, several hectares of vegetation may be destroyed.

## BRIEFS

IDENTIFICATION, CONTROL OF CORN VIRUS -- An Israeli scientist has succeeded in isolating and identifying a virus which causes a disease in corn crops, which has resulted in hundreds of millions of dollars in damage in Argentina, as well as preventing the spread of the disease into areas there. Where corn is raised, covering 90 million dunams of land. Raising corn in Argentina is one of the most important branches of agriculture. About half of the annual yield is set aside for the export of seeds and the feeding of livestock. For purposes of comparison, the tilled agricultural land in Israel covers four million dunams. The scientist is Prof Yitshaq Harpaz, of the Department of Entomology of the Faculty of Agriculture at the Hebrew University in Rehoboth. Prof Harpaz, who in the past was the dean of the faculty, yesterday told MA'ARIV that he was invited by the Inter-American Institute for Agricultural Sciences of the Organization of American States to work in Argentina on the disease, which had already spread over areas where corn is raised in the scope of 10 million dunams, and threatened to damage the whole corn crop of that country. On the basis of his researches in this area, the Israeli scientist was asked to propose ways of terminating the disease. A well known American expert, who was called to Argentina last year to try and solve the problem, was of the opinion that the disease was viral, but he was unable to propose ways of ending it because until that time the disease had not appeared in the western hemisphere. Only then was an appeal made to Prof Harpaz, who at the end of the 1950's had conducted pioneering research in Israel on this subject, at a time when the viral disease had infected corn fields in Israel, and had damaged the crops on hundreds of thousands of dunams. At that time, Prof Harpaz succeeded in isolating and identifying the virus which caused the disease as well as the insect which transmitted it. Equipped with this data, Prof Harpaz suggested ways of preventing the virus in the insect, and thus saved the corn crop in Israel. At that time, his work earned him an international reputation, and now the Israeli scientist has succeeded in applying the discoveries of his research so as to save the corn crop of Argentina. [Text] [Tel Aviv MA'ARIV in Hebrew 6 Apr 83 p 9] 7075

CSO : 5400/4518

END